



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,250	12/21/2000	Dimitris Katsamberis	60,137-162	9508

26096 7590 05/16/2003

CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

16
EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
----------	--------------

1775

DATE MAILED: 05/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,250

Applicant(s)

KATSAMBERIS ET AL.

Examiner

Andrew T Piziali

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Appeal Brief

1. After careful consideration of the arguments presented in the Appeal Brief filed 5/5/2003, and as a result of an updated search, the examiner has withdrawn the rejections, and the finality, of the Office Action dated 2/1/2002. As a result of the updated search new art has been discovered and applied against the claimed invention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,168,242 to Mokerji.

Regarding claims 1-6 and 10-13, Mokerji discloses an article having on at least a portion of its surface a multi-layer coating comprising a layer of polymer on the surface of the article and a color and protective color layer comprised of a refractory metal compound or refractory metal alloy compound on the polymer layer (column 1, lines 5-18).

Regarding claims 2-3 and 10-13, Mokerji discloses that the refractory metal compound or refractory metal alloy compound layer can be selected from nitrides, oxides, carbides or carbonitrides (column 3, lines 6-19).

Regarding claims 4, 6, 11 and 13, Mokerji discloses that a layer comprised of refractory metal or refractory metal alloy may be on the polymer layer (column 4, lines 14-29).

Art Unit: 1775

Regarding claims 5-6 and 12-13, Mokerji discloses that one or more additional layers comprising refractory metal or refractory metal alloy oxides, nitrides, carbides, or carbonitrides, may be deposited on the metal layer (column 4, lines 40-65).

4. Claims 1-6 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,589,280 to Gibbons et al. (hereinafter referred to as Gibbons).

Regarding claims 1-6 and 10-13, Gibbons discloses an article (column 3, lines 46-61 and column 8, lines 33-41) having on at least a portion of its surface a multi-layer coating comprising a layer of polymer on the surface of the article (column 4, lines 43-47) and a color and protective color layer comprised of a refractory metal compound on the polymer layer (column 7, line 64 through column 8, line 14).

Regarding claims 2-3 and 10-13, Gibbons discloses that the refractory metal compound may be selected from nitrides, oxides and carbides (column 8, lines 2-8).

Regarding claims 4, 6, 11 and 13, Gibbons discloses that a layer comprised of refractory metal or refractory metal alloy is on the polymer layer (column 4, lines 43-47 and column 5, line 63 through column 6, line 9).

Regarding claims 5-6 and 12-13, Gibbons discloses that one or more additional layers comprising refractory metal oxides, nitrides, or carbides, may be deposited on the metal layer (column 7, line 64 through column 8, line 14).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 1775

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7-8 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mokerji as applied to claims 1-6 and 10-13 above, and further in view of USPN 5,879,532 to Foster et al. (hereinafter referred to as Foster).

Mokerji discloses that one or more additional layers comprising refractory metal or refractory metal alloy oxides, nitrides, carbides, or carbonitrides, may be deposited on the metal layer (column 4, lines 40-65), but Mokerji does not mention an additional layer comprised of the reaction products of a refractory metal or refractory metal alloy, oxygen and nitrogen. Foster discloses that one or more additional layers comprising refractory metal or refractory metal alloy oxides, nitrides, carbides, carbonitrides or the reaction products of a refractory metal or refractory metal alloy, oxygen and nitrogen may be deposited on a metal layer to provide wear resistance, abrasion resistance and the desired color (paragraph bridging columns 6 and 7 and column 8, line 52-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make one of the one or more additional topcoat layers of Mokerji the reaction products of a refractory metal or refractory metal alloy, oxygen and nitrogen, as disclosed by Foster, because the layers are functionally equivalent at providing wear resistance, abrasion resistance and the desired color.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mokerji as applied to claims 1-6 and 10-13 above, and further in view of USPN 4,143,009 to Dewey.

Mokerji does not specifically mention using an epoxy urethane as the polymer layer, but Dewey discloses that a polymer comprising epoxy urethane has properties that depend in part upon the resin components, but that in generally epoxy urethane is extremely tough (column 3,

Art Unit: 1775

lines 21-32). It would have been obvious to one having ordinary skill in the art at the time the invention was made to select epoxy urethane as the polymer material of Mokerji, because epoxy urethane is a suitable polymer capable of forming an extremely tough surface.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gibbons as applied to claims 1-6 and 10-13 above, and further in view of USPN 4,143,009 to Dewey.

Gibbons does not specifically mention using an epoxy urethane as the polymer layer, but Dewey discloses that a polymer comprising epoxy urethane has properties that depend in part upon the resin components, but that in generally epoxy urethane is extremely tough (column 3, lines 21-32). It would have been obvious to one having ordinary skill in the art at the time the invention was made to select epoxy urethane as the polymer material of Gibbons, because epoxy urethane is a suitable polymer capable of forming an extremely tough surface.

9. Claims 1-8 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gibbons in view of USPN 5,879,532 to Foster et al. (hereinafter referred to as Foster).

Regarding claims 1-8 and 10-15, Gibbons discloses an article (column 3, lines 46-61 and column 8, lines 33-41) having on at least a portion of its surface a multi-layer coating comprising a layer of polymer on the surface of the article (column 4, lines 43-47) and a color and protective color layer comprised of a refractory metal compound on the polymer layer (column 7, line 64 through column 8, line 14).

Gibbons discloses that one or more additional layers comprising refractory metal oxides, nitrides, or carbides, may be deposited on the metal layer (column 7, line 64 through column 8, line 14), but Gibbons does not mention an additional layer comprised of a refractory metal alloy compound, a refractory metal or refractory metal alloy carbonitride, or the reaction products of a

Art Unit: 1775

refractory metal or refractory metal alloy, oxygen and nitrogen. Foster discloses that one or more additional layers comprising refractory metal or refractory metal alloy oxides, nitrides, carbides, carbonitrides, or the reaction products of a refractory metal or refractory metal alloy, oxygen and nitrogen, may be deposited on a metal layer to provide wear resistance, abrasion resistance and the desired color (paragraph bridging columns 6 and 7 and column 8, line 52-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make one of the one or more additional topcoat layers of Gibbons from a refractory metal alloy compound, a refractory metal or metal alloy carbonitride, or the reaction products of a refractory metal or refractory metal alloy, oxygen and nitrogen, as disclosed by Foster, because the layers are functionally equivalent at providing wear resistance, abrasion resistance and the desired color.

Regarding claims 4, 6-7, 11, 13 and 15, Gibbons discloses that a layer comprised of refractory metal or refractory metal alloy is on the polymer layer (column 4, lines 43-47 and column 5, line 63 through column 6, line 9).

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gibbons as applied to claims 1-8 and 10-15 above, and further in view of USPN 4,143,009 to Dewey.

Gibbons does not specifically mention using an epoxy urethane as the polymer layer, but Dewey discloses that a polymer comprising epoxy urethane has properties that depend in part upon the resin components, but that in generally epoxy urethane is extremely tough (column 3, lines 21-32). It would have been obvious to one having ordinary skill in the art at the time the invention was made to select epoxy urethane as the polymer material of Gibbons, because epoxy urethane is a suitable polymer capable of forming an extremely tough surface.

Art Unit: 1775

11. Claims 1-8 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,132,889 to Welty et al. (hereinafter referred to as Welty) in view of USPN 6,154,311 to Simmons, Jr. et al. (hereinafter referred to as Simmons Jr.)

Welty discloses an article, such as a faucet (column 1, lines 9-26), with a multi-layer coating (column 1, lines 42-64) comprising a nickel layer with a refractory metal layer deposited on the nickel layer. A refractory metal compound layer, such as zirconium nitride or titanium nitride (column 4, lines 34-48), is deposited on the refractory metal layer. Deposited on the refractory metal compound layer is a layer comprised of a refractory metal oxide or the reaction products of a refractory metal, oxygen and nitrogen. Welty discloses that the nickel layer provides improved corrosion protection and functions as a leveling layer which tends to cover or fill in imperfections on the substrate (column 3, lines 23-48).

Welty does not mention a polymer layer, but Simmons Jr. discloses the use of a polymer layer, in place of a nickel layer, in articles such as faucets, to provide improved corrosion resistance and to level substrates by forming a smooth hard surface (column 2, lines 9-45 and column 6, lines 15-44). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the nickel layer of Welty, with the polymer layer of Simmons Jr., because the polymer layer provides a viable alternative to electroplating in addition to providing corrosion resistance while leveling a substrate by forming a smooth hard surface.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Welty in view of Simmons Jr. as applied to claims 1-8 and 10-15 above, and further in view of USPN 4,143,009 to Dewey.

Art Unit: 1775

Simmons Jr. does not specifically mention using an epoxy urethane as the polymer layer, but Dewey discloses that a polymer comprising epoxy urethane has properties that depend in part upon the resin components, but that in generally epoxy urethane is extremely tough (column 3, lines 21-32). It would have been obvious to one having ordinary skill in the art at the time the invention was made to select epoxy urethane as the polymer material of Simmons Jr., because epoxy urethane is a suitable polymer capable of forming an extremely tough surface.

Response to Arguments

13. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (703) 306-0145. The examiner can normally be reached on Monday-Friday (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-3822.

Andrew T Piziali
Examiner
Art Unit 1775

G-B
atp
May 13, 2003


DEBORAH JONES
SUPERVISORY PATENT EXAMINER